

Fig.2

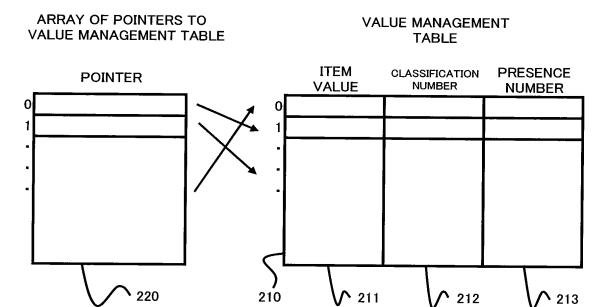


Fig.3

PMM

32-0

34-0

32-1

36-0

36-1

32-2



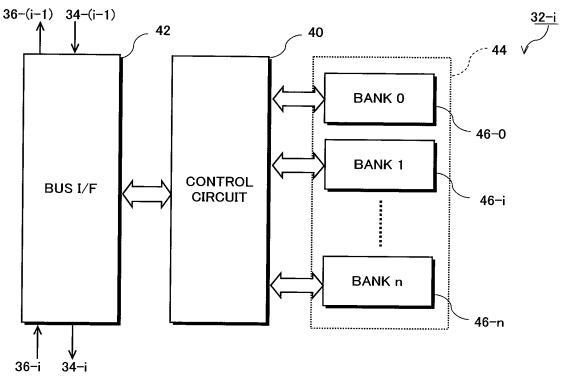
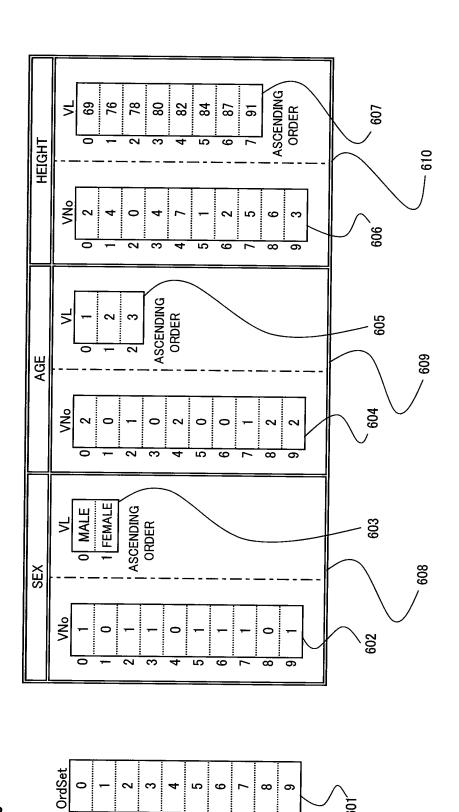


Fig.5

RECORD NUMBER SEX AGE HEIGHT(cm) **FEMALE** MALE **FEMALE FEMALE** MALE **FEMALE FEMALE FEMALE** MALE **FEMALE** 

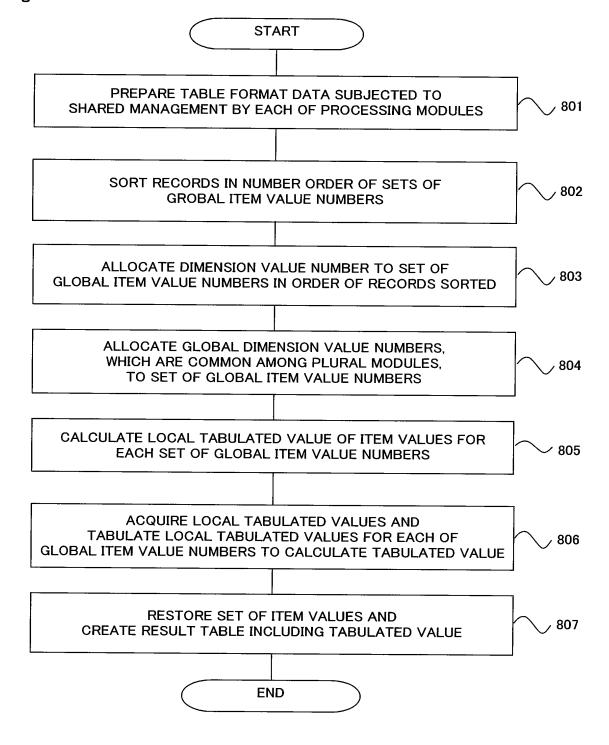


9

Fig.7

PMM-0	SEX (PMM-1)   AGE (PMM-1)   HEIGHT (PMM-1)   HEIGHT (PMM-1)	SEX (PMM-2)   AGE (PMM-2)   AGE (PMM-2)   HEIGHT (PMM-2)	PMM-3   AGE   HEIGHT   GOrd OrdSet   VNo   VL   GVNo   VL   GVNo
OFFSET= 0		OFFSET= 5  PMM-2  SEX AGE 0 FEMALE 1 1 FEMALE 1 2 FEMALE 2	OFFSET= 8 PMM-3 SEX AGE 0 MALE 3

Fig.8



GOrd OrdSet GOrd OrdSet OrdSet OrdSet SORT BY SEX SORT BY SEX SORT BY SEX SORT BY SEX Gord 1 GOrd OrdSet GOrd OrdSet GOrd OrdSet OrdSet 0 0 0 2 0 SORT BY AGE SORT BY AGE SORT BY AGE SORT BY AGE Gord 0 1 1 1 ASCENDING ASCENDING ASCENDING ASCENDING ASCENDING GVNo GVNo GVNo GVNo ORDER ORDER ORDER ORDER 0 7 0 AGE (PMM-0) AGE (PMM-1) AGE (PMM-2) (PMM-3) ASCENDING ASCENDING ASCENDING ORDER ORDER ORDER က AGE Š 0 0 0 0 ASCENDING ASCENDING ORDER ORDER ASCENDING ASCENDING ASCENDING ORDER ASCENDING ASCENDING ORDER ORDER GVNo ORDER GVNo GVNo GVNo ORDER 0 SEX (PMM-0) 1 FEMALE 1 SEX (PMM-2) SEX (PMM-3) SEX (PMM-1 ASCENDING A 1 FEMALE 1 FEMALE 0 MALE 0 MALE 0 FEMALE 0 MALE ŝ Š Ŷ. 0 0 0 OrdSet OrdSet GOrd OrdSet GOrd OrdSet 0 ~ 7 0 0 ASCENDING ORDER ASCENDING ORDER ASCENDING ASCENDING ORDER ORDER Gord Gord 0 7 6 4 9 ∞ 2 HEIGHT HEIGHT HEIGHT HEIGHT 78 82 69 82 91 28 9/ 84 87 80 PMM-0 PMM-1 PMM-2 PMM-3 AGE AGE AGE AGE OFFSET= 0 OFFSET= 3 OFFSET= 8 FEMALE 2 FEMALE FEMALE 1 FEMALE MALE OFFEMALE 2 FEMALE MALE OFFSET= FEMALE MALE SEX SEX SEX SEX

Fig.9

 $\sim$ 

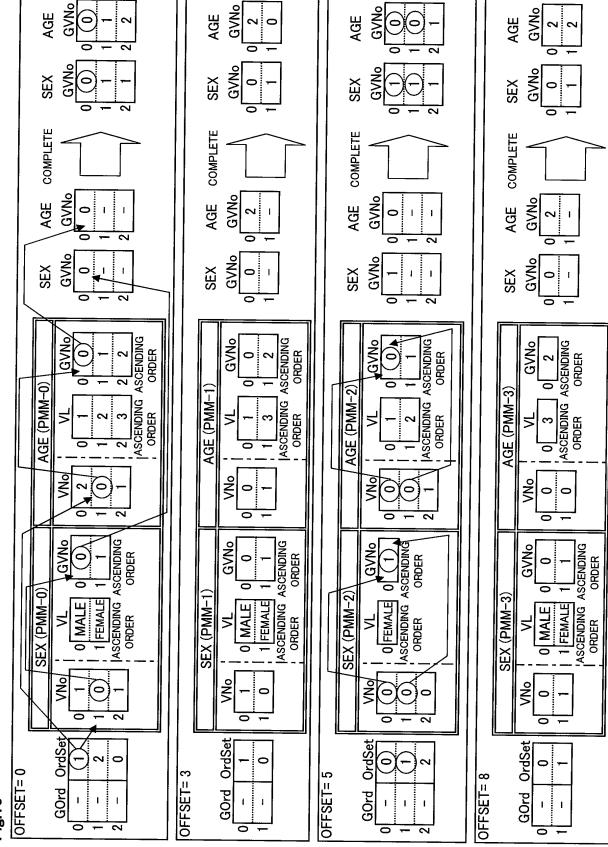


Fig.10

Fig.11

# CREATE LOCAL DIMENSION VALUE NUMBER LDimNo (ORDERING OF DIMENSIONS IN LOCAL)

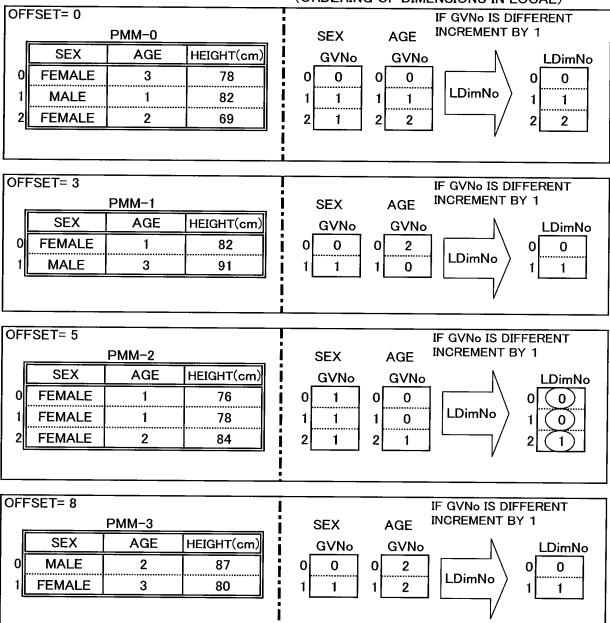
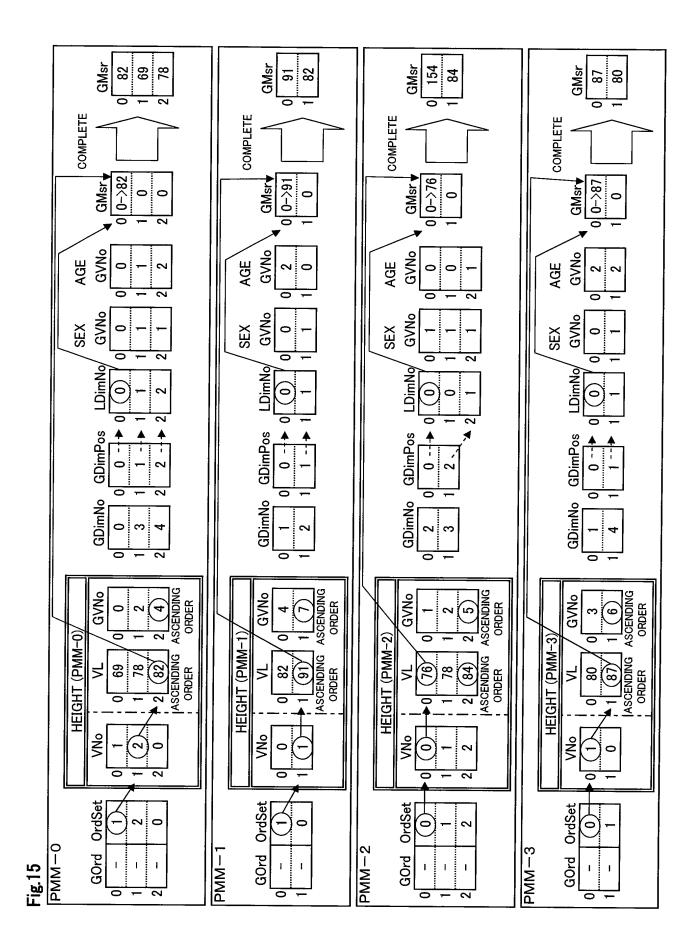


Fig.13

	LDimNo	GNo1	GNo2	GDimNo
	0	0	0	0
PMM-0	1	1	1	3
	2	1	2	4
PMM-1	0	0	2	1
	1	1	0	2
PMM-2	0	1	0	2
<u>-</u>	1	1	1	3
PMM-3	0	0	2	1
	1	1	1	2

Fig.14

: L				
Ō	OFFSET= 0			
		PMM-0		SEX AGE
		AGE	HEIGHT	<u>0</u>
0	FEMALE	3	78	0 0 0 0 0 0
	MALE	-	82	1 3 1 1 1 1 1 1 1 1 1 0
2	FEMALE	2	69	2 4 2 2 2 2 2 1 2 2 0
╝				
O	OFFSET= 3			
		PMM-1		I SEX AGE
	SEX	AGE	HEIGHT	<u>o</u>
0	FEMALE		82	0 2 0
	MALE	3	91	1 2 1 1 1 1 1 1 0 1 0
Ö	OFFSET= 5	!		
		PMM-2		SEX AGE
	SEX	AGE	HEIGHT	0
0	FEMALE	1	9/	0 2 0 0 • 0 0 1 0 0 0
	FEMALE	_	78	1 3 1 2 1 0 1 1 0 1 0 1 0
2		2	84	<b>→</b> 2 1 2 1 2 1
Ö	OFFSET= 8			
		PMM-3		SEX AGE
	SEX	AGE	HEIGHT	<u>0</u>
0	MALE	7	87	0
_	FEMALE	3	80	1 4 1 1 1 1 1 1 0



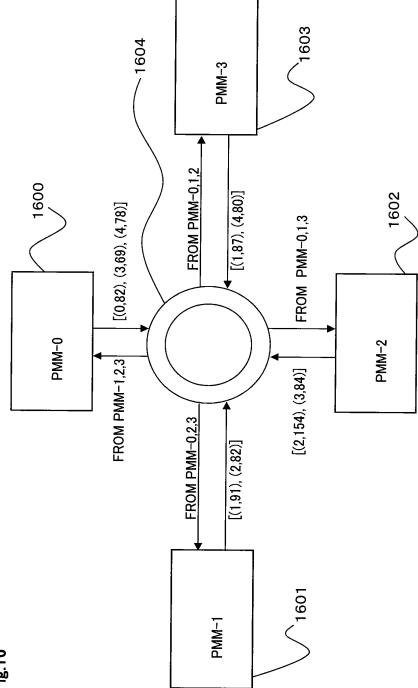


Fig.16

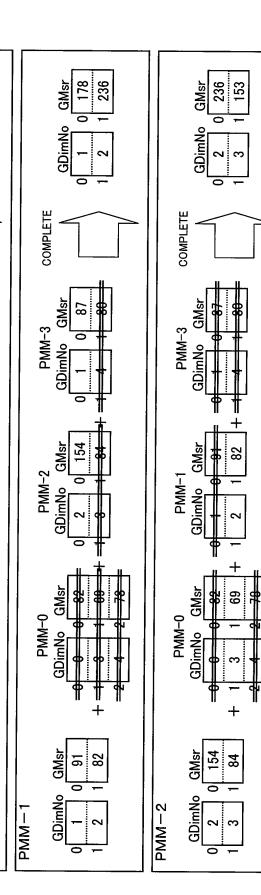
PMM-3 GDimNo GMsr PMM-2 GDimNo PMM-1 GDimNo GMsr 82 69 78 GDimNo PMM-0 Fig.17

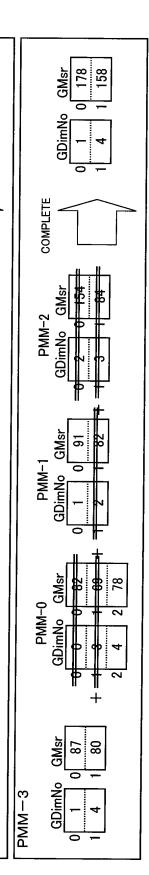
82 153 158

GMsr

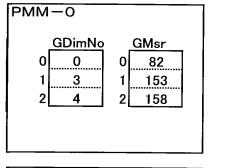
**GDimNo** 

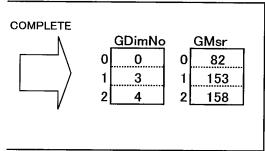
COMPLETE

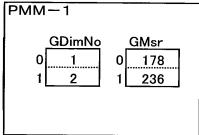


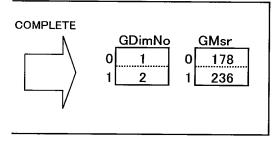


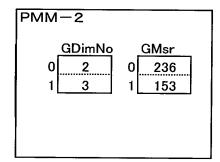
**Fig.18** 

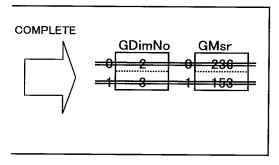


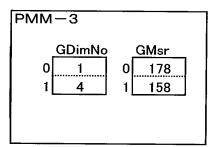


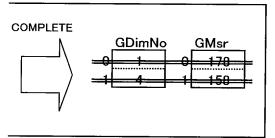












GVNo ASCENDING ASCENDING ORDER ORDER ASCENDING ASCENDING ORDER GVNo 0 AGE AGE VNo 0 -1 FEMALE 1 1 ASCENDING ORDER 0 MALE 0 0 1 FEMALE 1 1 ASCENDING ASCENDING ORDER ORDER GVNo SEX  $\forall$ SEX 0 0 GVNo GVNo AGE AGE 7 0 2 GVN<sub>0</sub> GVNo 0 SEX SEX LDimNo LDimNo 2 -- 4 **GDimPos GDimPos** - 0 GMsr 82 153 158 178 236 GMsr **GDimNo GDimNo** 0 ε 4 PMM-0 PMM-1

Fig.19

Fig.20

		PMM-0			SEX DIMENSION	AGE DIMENSION	TABULATED
	SEX	AGE	HEIGHT		VALUE	VALUE	VALUE
0	FEMALE	3	78		MALE	1	0 82
1	MALE	1	82	/	FEMALE	2	1 153
2	FEMALE	2	69		FEMALE	3	2 158
	-						
			·				
	<del>.</del>				SEX	AGE	

_		PMM-1	
	SEX	AGE	HEIGHT
0	FEMALE	1	82
1	MALE	3	91
•			

SEX DIMENSION VALUE	AGE DIMENSION VALUE	TABULATI VALUE	ED
MALE	3	0 178	1
FEMALE	1	1 236	

		PMM-2	
	SEX	AGE	HEIGHT
0	FEMALE	1	76
-1	FEMALE	1	78
2	FEMALE	2	84
•			

		PMM-3	
	SEX	AGE	HEIGHT
0	MALE	3	87
1	FEMALE	3	80
•			

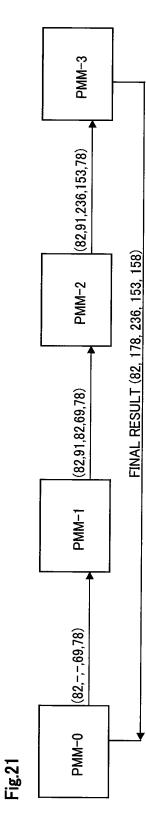
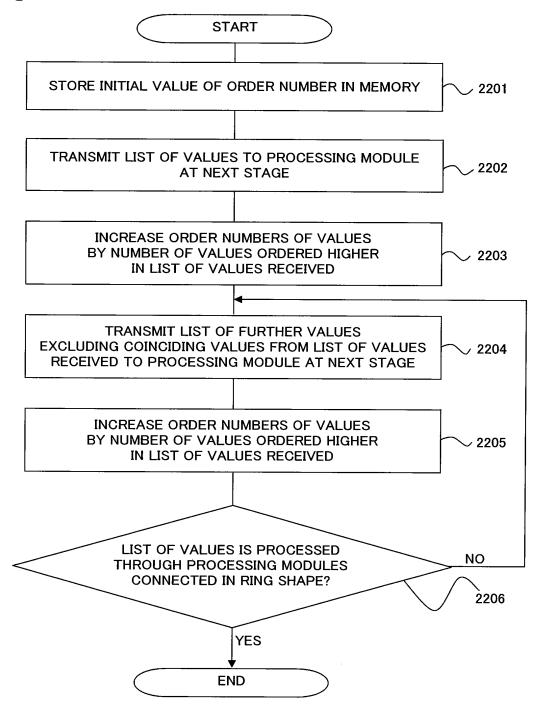


Fig.22



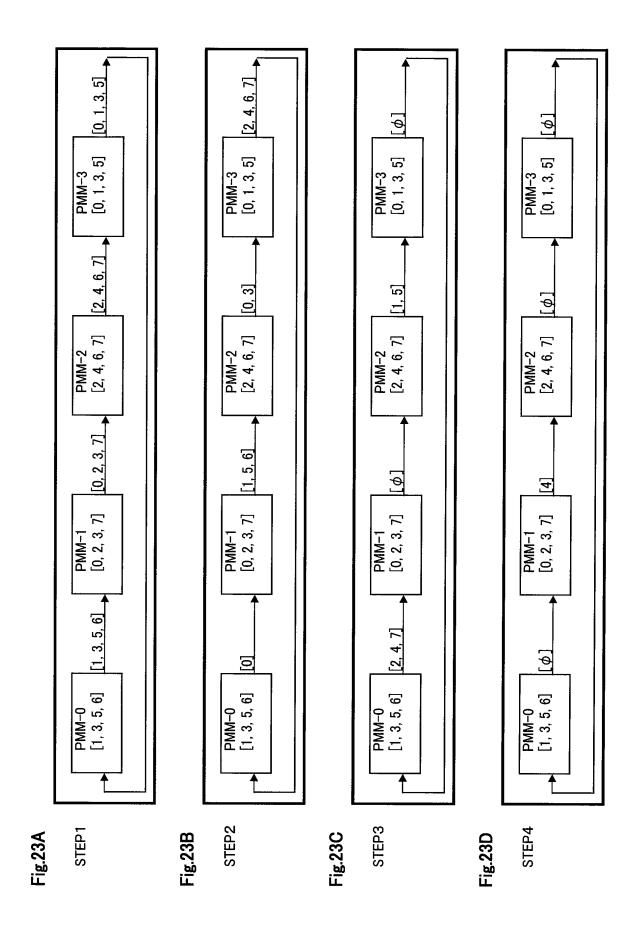


Fig.24A

	RECEIVED LIST			
STEP1	PMM-0 [0, 1, 3, 5]	PMM-1 [1, 3, 5, 6]	PMM-2 [0, 2, 3, 7]	PMM-3 [2, 4, 6, 7]

Fig.24B

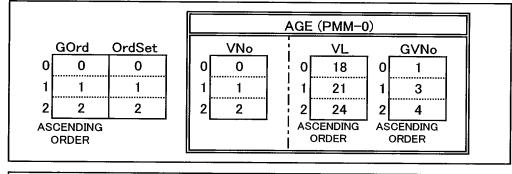
	RECEIVED LIST			
STEP2	PMM-0 [0, 1, 3, 5] [2, 4, 6, 7]	PMM-1 [1, 3, 5, 6] [0]	PMM-2 [0, 2, 3, 7] [1, 5, 6]	PMM-3 [2, 4, 6, 7] [0, 3]

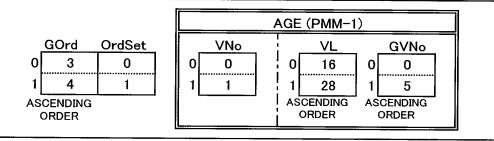
Fig.24C

Fig.24D

	EIVED LIST			
PMM-0		PMM-1	PMM-2	DMM-3
STFP4 [0	3 7	[ו ז ג ה]		
_	0 1	[0 , 0 , 0 ]	[0, 2, 3, 7]	[2, 4, 6, /]
[2,	4, 6, 7]	0	[1.5.6]	[0 3]
_	_	[r / c]	[	
<b>.</b>	٦,	[2, 4, 7]	[ <i>\phi</i> ]	[], 5]
Ф Т	<b>[φ]</b>	[ <b>\phi</b> ]	[4]	$\lfloor \phi  floor$

Fig.25





			AGE (PMM-2)						
GOrd	OrdSet		VNo	. !		VL		GVNo	
0 5	0	0	1		0	16	0	0	
1 6	1	1	0		1	20	1	2	
2 7	2	2	2	ļ	2	33	2	6	
ASCENDING ORDER	ì			'   :		CENDING ORDER		CENDING ORDER	

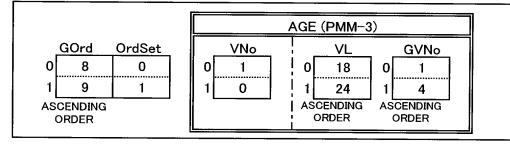


Fig.26

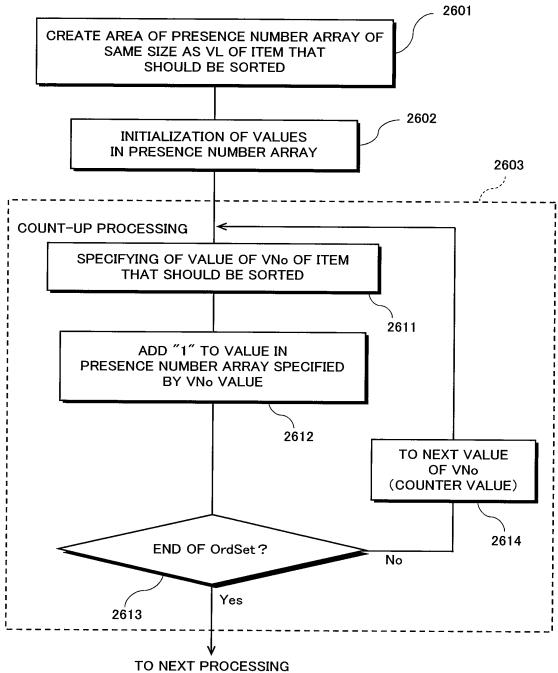
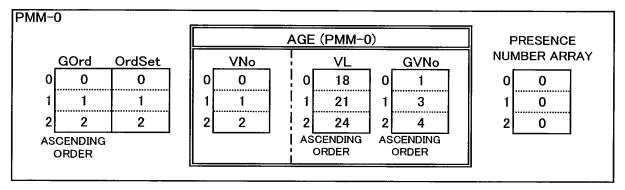
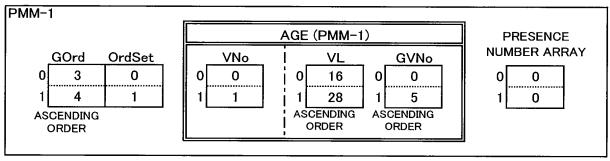
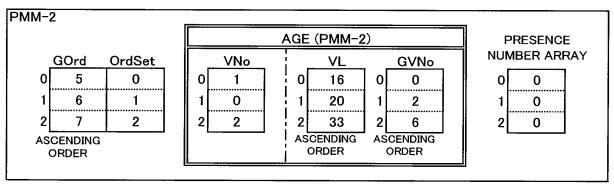


Fig.27

. . . .







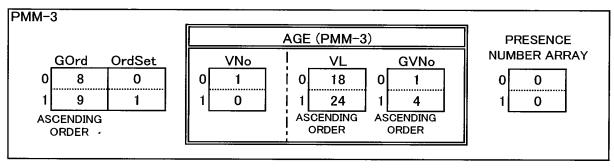
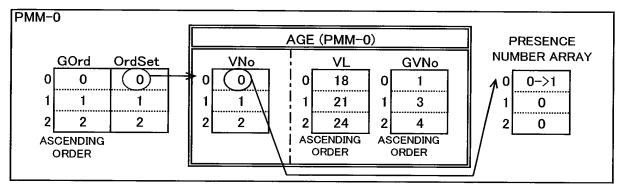
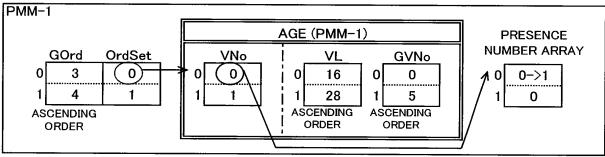
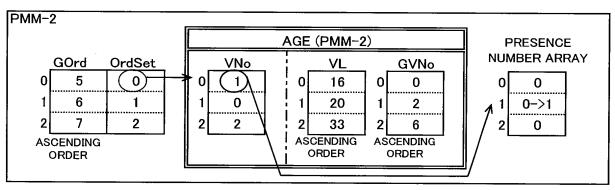


Fig.28







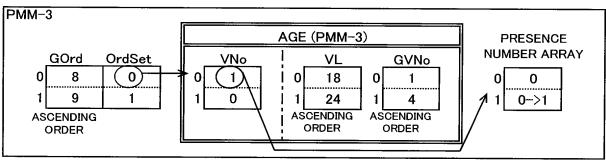
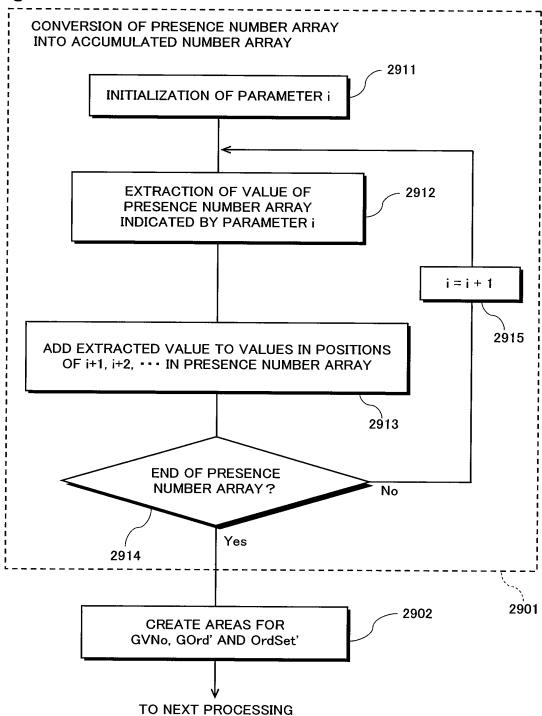
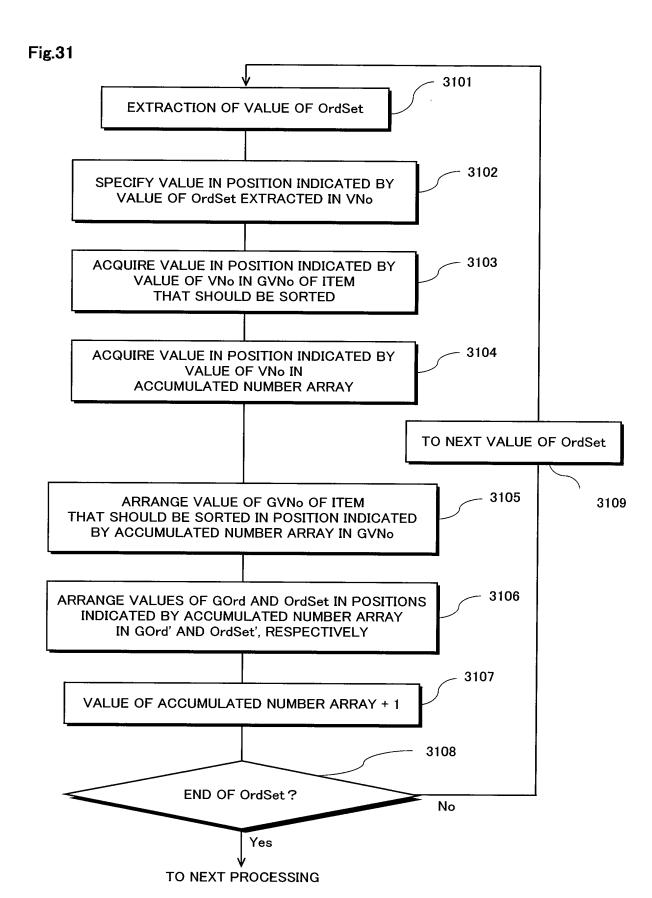
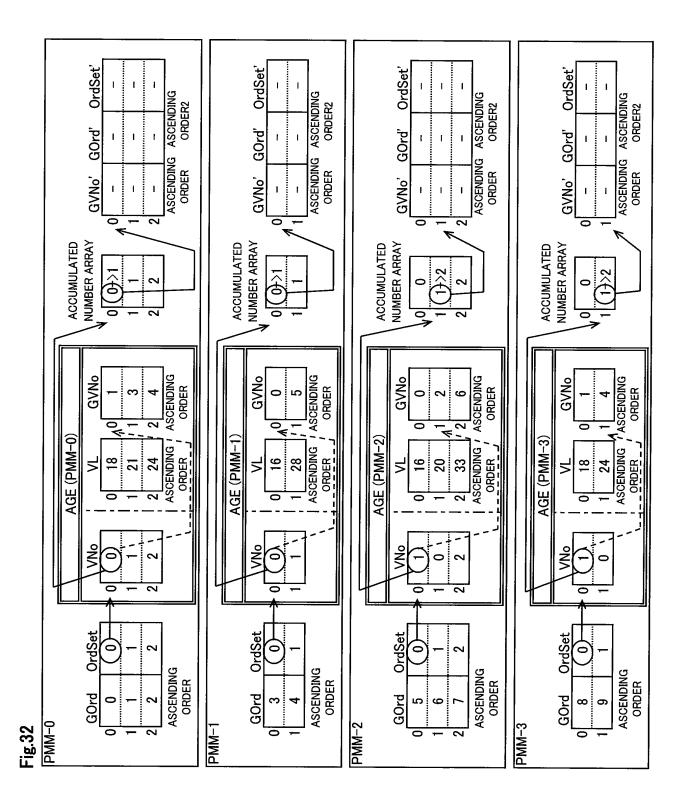


Fig.29



OrdSet' OrdSet' OrdSet' OrdSet' ı GOrd' GVNo' GOrd' GOrd' GOrd' GVNo, GVNo' GVNo, NUMBER ARRAY **NUMBER ARRAY** NUMBER ARRAY NUMBER ARRAY ACCUMULATED ACCUMULATED ACCUMULATED ACCUMULATED 0 -0 ~ 0 0 **NUMBER ARRAY NUMBER ARRAY** NUMBER ARRAY **NUMBER ARRAY** PRESENCE PRESENCE PRESENCE PRESENCE ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER GVNo GVNo GVNo GVNo ß 9 4 0 AGE (PMM-0) AGE (PMM-1) AGE (PMM-2) ASCENDING ORDER AGE (PMM-3) 2 24
ASCENDING ASCENDING ORDER ASCENDING 91 28 33 28 82 8 16 ORDER 닛 21 ORDER 닛  $\exists$ Š  $\stackrel{\circ}{\mathbb{N}}$ % N SN/ 0 2 0 0 OrdSet OrdSet OrdSet OrdSet 0 ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER ASCENDING ORDER Gord GOrd Gord Gord 0 က Ŋ 9 ∞ PMM-1 PMM-2 PMM-3 PMM-0 Fig.30





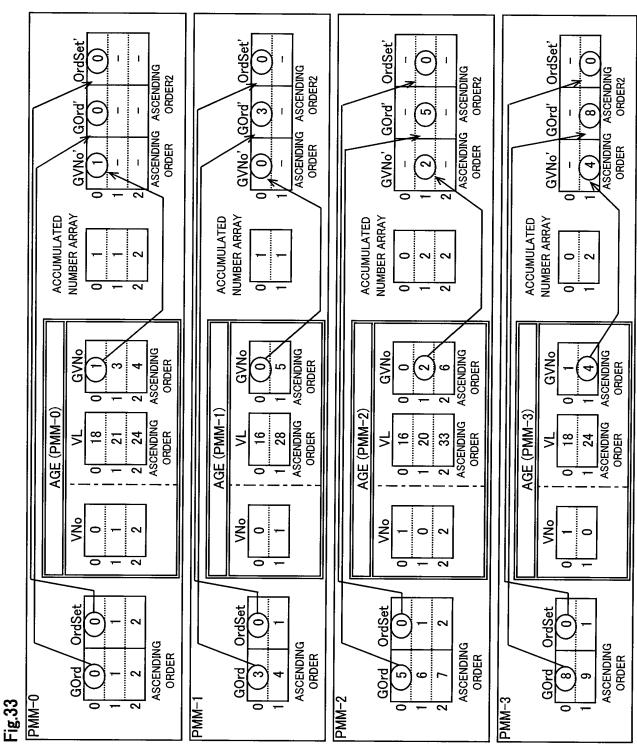


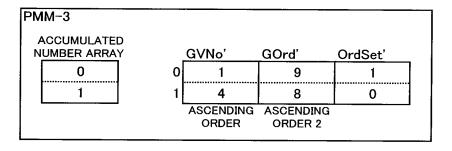
Fig.34

... . . ...

PM	IM−0				
	ACCUMULATED		GVNo'	GOrd'	OrdSet'
	0	0	1	0	0
	1	1	3	1	1
	2	2	4	2	2
			ASCENDING ORDER	ASCENDING ORDER 2	·

PM	IM-1					
	ACCUMULATED		GVNo'	GOrd'	OrdSet'	
	0	0	0	3	0	
	1	1	5	4	1	
			ASCENDING ORDER	ASCENDING ORDER 2		

PM	IM-2				
	ACCUMULATED UMBER ARRAY		GVNo'	GOrd'	OrdSet'
	0	0	0	6	1
	1	1	2	5	0
	2	2	6	7	2
			ASCENDING ORDER	ASCENDING ORDER 2	



# Fig.35A

### ARRAY CREATION

OrdSet	GVNo OF SEX	GVNo OF AGE	GOrd
0	1	2	0
1	0	0	1
2	1	1	2

# Fig.35B

### ORDER NUMBER INITIALIZATION

OrdSet	ORDER NUMBER
0	0
1	0
2	0

# Fig.35C

### **ORDER NUMBER ALLOCATION 1**

OrdSet	ORDER NUMBER
0	0→1
1	0
2	0→1

# Fig.35D

### **ORDER NUMBER ALLOCATION 2**

OrdSet	ORDER NUMBER	
0	1→2	
1	0	
2	1	

# Fig.35E

### **RESULT**

ORDER NUMBER	OrdSet	GVN₀ OF SEX	GVN₀ OF AGE	GOrd
2	0	1	2	0
0	1	0	0	1
1	2	1	1	2

# Fig.35F

### **RESULT**

ORDER NUMBER	OrdSet	GVN₀ OF SEX	GVN₀ OF AGE	GOrd
0	1	0	0	1
1	2	1	1	2
2	0	1	2	0